

CHAPTER 11
HAZARDOUS WASTE/MATERIALS

11.0 HAZARDOUS WASTE/MATERIALS

This section presents an overview of the hazardous materials associated with, and/or surrounding the proposed project site. Information has been summarized from documents supplied by the Applicant. These documents and information have been reviewed for their content and supplemented by Dames & Moore's experience. As the impacts and mitigation measures are based on a limited review of information provided by others, and a limited site reconnaissance by Dames & Moore, it should be noted that conditions not revealed or observed during the preparation of these mitigation measures may be identified during ground-disturbing activities associated with construction of the proposed project.

Additional sources of information include a review of federal and state environmental records utilizing a computer database search prepared for Dames & Moore by Vista Information Solutions, Incorporated (VISTA Information Solutions, 1998), and a limited site reconnaissance conducted by Dames & Moore on November 13, 1998.

11.1 ENVIRONMENTAL SETTING

This section describes existing conditions relating to hazardous materials within the study area. The potential for hazardous materials to have existed on the project site historically, or which may exist during or following construction, is also presented.

11.1.1 Regional Setting

This section identifies and describes sites adjacent to the project site or within the study area where documents show that hazardous substances are stored and/or generated, and where hazardous waste has been reported. Properties in the study area consist primarily of rural residences and ranches. They have the potential to contain agricultural chemicals, including pesticides, herbicides, and fertilizers. Existing documented conditions relating to agricultural chemicals are discussed in this section.

Other neighboring properties include the tracks of the Union Pacific (formerly Southern Pacific) Railroad which are located adjacent to the southern boundary of the project site. Twelve Bridges Golf Club, which opened in 1996, is located west of the project site across Sierra College Boulevard.

The former headquarters area of the Bickford Ranch, which consists of several structures on a 10 acre parcel located within the boundaries of the project site (the NAPOTS), would not be part of the specific plan for Bickford Ranch. However, since the former headquarters area would be surrounded by the project site, pertinent information regarding the former headquarters area will therefore also be discussed in this section.

Surrounding Sites

The following sites have been identified as being of potential environmental concern through a review of a Preliminary Environmental Site Assessment (PEM, 1996a), which covers the proposed project site and the former ranch headquarters area, and the VISTA database search (VISTA Information Solutions, 1998):

- Fowler Nurseries, located at 525 Fowler Road approximately 0.75 miles north of the project site on the north site of SR 193, was identified on the list of registered underground and aboveground fuel storage tanks. No releases from these storage tanks have been reported. A release of pesticides and other agricultural chemicals was reported for Fowler Nurseries in 1994, based on a

Vista database search conducted in November, 1998. This release reportedly did not affect groundwater at this site, and there is no information indicating migration of hazardous materials off of the Fowler Nursery site.

- Dairy Farm mine is located near Camp Far West Reservoir approximately 10 miles north of the project site. This site was a copper mine which operated most recently in 1936. The tailings from the mine have been capped, and the site was closed by the Regional Water Quality Control Board in 1991 (PEM, 1996a).

According to the PEM report, the California Department of Conservation, Division of Oil and Gas, was contacted with regard to the existence of oil or gas wells in the study area, and none were identified.

Several locations near the project area containing registered underground fuel storage tanks (USTs) were identified. No reports of releases were identified by the VISTA report, based on a list of registered USTs maintained by the State of California. These locations are listed below, together with the distance from the center of the project site.

- N.A. Bouma, 4445 Poppy Hill Road, Lincoln, 0.6 miles to the northwest.
- Fowler Nurseries, 525 Fowler Road, approximately 0.75 miles to the north.
- Perry Ranch, 5800 English Colony Rd., Penryn, 1.3 miles to the south.
- Ranch of Ladolecevit, 705 Bridge Rd., Newcastle, 1.6 miles to the northeast.
- Howard Nakae, 6105 Lincoln Newcastle Rd., Newcastle, 1.7 miles to the northeast.
- Sycamore Hill Farm, 5885 Sycamore Hill Rd., Newcastle, 1.8 miles to the northeast.
- James Sugiyama, 6800 Lincoln Newcastle Rd., Newcastle, 1.9 miles to the east.
- Falcon's Rest, 2526 Del Mar Rd., Penryn, 1.95 miles to the south.

A Union Pacific Railroad right-of-way borders the project site to the south. There is no record of releases of hazardous materials along this portion of railroad right-of-way. During a reconnaissance of a limited portion of the railroad tracks, minor amounts of lubricant leakage were observed.

Former Ranch Headquarters Area

The former Bickford Ranch headquarters area consists of several wooden buildings located on a 10-acre parcel which is contained within the northwestern portion of the project site, but is not a part of the specific plan for Bickford Ranch. Many of these buildings were constructed subsequent to purchase of the property by J. Arthur Bickford in 1926. The ranch was operated as a dairy farm for about 30 years, and subsequently as a cattle ranch (Windmiller, et al., 1998a).

Most of the observations of possible waste releases described in the PEM report are located in the vicinity of storage and maintenance structures in the ranch headquarters area. These observations, and the recommendation made by PEM, are summarized below.

Some minor surficial petroleum staining (PEM, 1996a) has been observed on soils in the vicinity of the ranch buildings. PEM recommended removal and disposal of these soils.

Two former underground storage tanks with a capacity of 1,000 gallons or less were reportedly located in the vicinity of the ranch buildings and used for fuel storage (PEM, 1996b). These tanks were reportedly removed between 1993 and 1996; however, because the installation and/or removal of agricultural underground storage tanks are not regulated by the State or County, no record of their removal exists in State or County databases. Exploratory pits were advanced by backhoe at the reported locations of each of the former USTs by PEM in 1996. These pits reached depths of 4.5 to 6 feet before encountering

bedrock. Material encountered in the pits consisted of concrete debris, ranch refuse (bailing wire), and gravel indicative of backfill with non-native material. No staining or petroleum odors were observed in either of the excavations. A total of two soil samples, one from each pit, were collected and analyzed for total petroleum hydrocarbons as diesel, gasoline and motor oil (TPHd, TPHg, and TPHm), and benzene, toluene, ethylbenzene and xylenes (BTEX). TPHd and TPHm were reported in the soil sample collected from the more southerly of the two former UST locations at concentrations of 13 and 17 mg/kg, respectively. The location of the southerly UST was observed to be located in an area formerly used for vehicle maintenance (PEM, 1996b).

PEM recommended that a closure letter be requested from the Placer County Department of Environmental Health based on the soil exploration analytical results. However, according to Mr. Dave Buck of the Placer County Environmental Health Department (Buck, 1998), as farm tanks, the USTs are not regulated by California code and the County can not therefore issue a letter of closure. Mr. Buck also said that regardless of closure, evidence of remaining contamination would subject the site to review and action by the County as a potential health risk.

Containers of paints, cleaners, oils, agricultural chemicals and other miscellaneous chemicals were observed in the vicinity of the ranch buildings by PEM (1996a). PEM recommended appropriate disposal of these containers.

One water supply well in the former headquarters area was observed and described by PEM. This well was a 5-foot-diameter, hand-dug well located within a ranch building approximately 50 feet to the northwest of the southerly former UST location. The observable interior of the well was lined with stone, and the water level was observed to be approximately 18 feet below ground surface (PEM, 1996a). According to the Applicant, the well is lined with concrete. No petroleum odors or sheen was observed. A water sample was collected from this well and analyzed for TPHd, TPHg and TPHm by EPA Method 8015M, BTEX by EPA Method 8020, and chlorinated hydrocarbons by EPA Method 601. No detections were reported (PEM, 1996b). This well is located in the downgradient groundwater flow direction from the former UST locations, based on topography. Therefore, the lack of hydrocarbon detections indicates that contaminated groundwater (if any) from the former ranch headquarters area has not migrated to the proposed project. PEM recommended abandonment of this well; however, it is understood that the current property owner intends to continue to use the well for irrigation. Mr. Roger Davies of the Placer County Department of Health (Davies, 1998) said that normally the County would require closure of such a well within a subdivision development, but that an appeal could be made.

A sink which drains to the ground was observed in a maintenance barn by PEM (1996a). This building was formerly used as a dairy barn from 1926 through approximately the 1950s, then as a shop as the ranch shifted from dairy cows to beef cattle (Windmiller, et al., 1998a). No staining was reported by PEM, who recommended that a soil sample be collected from below the drain and analyzed for organic compounds. Sampling has not been conducted in this area in connection with the proposed project because migration of potential organic compounds in soil is not of concern.

Domestic wastes from the residence are handled by a septic system located within the former headquarters area. None of the headquarters area out-buildings are connected to this system, and there is no evidence that it has been used for the disposal of hazardous materials.

No other existing uses of adjacent properties likely to involve the handling of significant quantities of hazardous materials or hazardous waste which could impact the proposed project site were reported by PEM or observed by Dames & Moore during the site reconnaissance.

No other facilities within the study area have been identified on any federal, State, or local government agency lists.

11.1.2 Existing Site Conditions

This section describes historical or existing site conditions indicating the potential for use or release of hazardous materials. Ranching and limited mining and prospecting have been the only apparent former uses of the site. Aerial photographs for the study area taken between 1962 and 1989 were reviewed by PEM as part of the preliminary environmental site assessment prepared by them (PEM, 1996a). These photographs show land use in the study area and on the project site to be similar to current uses, consisting of rural residences and ranches. No indications of mine activity were observable on the photographs. No fuel dispensers in the area of the reported former USTs were evident on enlarged aerial photographs.

Locations of possible waste releases on the site include a former gold mine on the eastern portion of the project site, locations of casual refuse disposal, and abandoned underground lead sheathed telephone cables. These locations are described below.

Former Gold Mining Activity

The locations of former placer mining and prospecting locations on the project site have been previously described in Section 10.1.3. The limited amount of tailings observed and the lack of recorded mineral rights claims indicates limited mining activity. There are no reported or observed indications of the presence of hazardous materials associated with these locations at the surface. Although there is no information available regarding the presence or absence of hazardous materials within the mine workings, the nature of these deposits and the typical manner of mechanical separation of gold from the ore in placer deposits suggest that the presence of hazardous materials within the workings or the tailings is unlikely. No drainage, or evidence of drainage, has been reported or observed from the mine tunnels. The tunnels are constructed within cemented conglomerate and are self-supporting without shoring. No evidence of mine tunnel collapse, either at the entrance or elsewhere, has been observed.

Casual Refuse Disposal

During the limited site reconnaissance conducted on November 13, 1998, by Dames & Moore, two locations of informal disposal of solid wastes were observed. One of these consisted of an abandoned, partially buried, and re-excavated vehicle, the other of a minor amount of cans and bottles. No soil staining or odors indicating soil contamination were observed at these locations. It is possible that other similar sites were created during the long history of ranching use of the project site.

Potential Cattle Dipping Vat

There is no evidence, either based on reported ranch operation or direct observation, that a cattle dipping vat (CDV) has existed at the project site. Because of the history of the project site as a former cattle ranch, the potential for the existence of a CDV exists. A CDV, consisting of a large concrete lined trough, was an occasional feature on cattle ranches through the mid-1950s. CDVs were used for the control of ticks, and chemicals used in CDVs included arsenic and organic pesticides which persist for long periods in the environment and are suspected human carcinogens. Because of the presence of these chemicals, the soils and groundwater in the area of a CDV may be hazardous. Human exposure can occur due to inhalation of contaminated dust, or by drinking contaminated water.

The potential for the existence of a CDV on the project site is low. There is no evidence in the Cultural Resources Survey (Windmiller et al., 1998a), in observations made during the limited site reconnaissance, or in information obtained from the former ranch owner to indicate the presence of a CDV on the project site or at the former ranch headquarters area. According to the former ranch owner, all cattle dipping was done in Nevada. Barring the existence of a CDV on the project site, there is no evidence for any significant past use of agricultural pesticides on the Bickford Ranch.

Abandoned Lead-Sheathed Telephone Cables

Several abandoned underground telephone cables cross the subject site. To assess potential leaching of lead into adjacent soils from the lead-sheathed cables, soil samples were collected in the vicinity of the abandoned cables at three locations on the project site (Aqua-Terra, 1997). Sampled locations were within the Mehrten formation mudflow breccia on the east boundary of the proposed project site, the Mehrten Formation conglomerate on the north side of Clark Tunnel Road, and the bedrock granitic rocks on the southern portion of the proposed project site north of the railroad right-of-way. The cables were encountered at these locations at depths ranging from 12 inches to 30 inches. Two soil samples were collected at each location – one immediately beneath the cable and a background sample, apparently of surface soils, from approximately 50 feet upslope of the cable. The samples were analyzed for lead by EPA Method 6010 and for soil pH. Analytical results for lead ranged from 9.9 mg/kg to 31.4 mg/kg. In all cases the background soil results were higher, and all results were below the U.S. Environmental Protection Agency Preliminary Remedial Goal (PRG) of 130 mg/kg for residential soil.

11.2 REGULATORY SETTING

The State of California, the Placer County Environmental Health Department, the Penryn Fire Department, and the Placer County Fire Department (PCFD) have policies and guidelines concerning the handling, storage, and disposal of hazardous substances. Permits and requirements related to the handling, storage, and disposal of hazardous substances that may be required for this proposed project include the following:

- The Project shall coordinate permits and requirements related to hazardous substances with the Certified Unified Program Agency (CUPA) program. The CUPA program is mandated by Senate Bill 1082 (California Health and Safety Code, Division 20, Chapter 6.11) which establishes a unified hazardous waste and materials management regulatory program. Through this unified program, the Project has a single point of contact for permitting related to hazardous waste generation, underground and above-ground storage tanks, hazardous materials release response plans and inventories, and risk management and prevention programs. This program is implemented locally by the Placer County Environmental Health Services, which was certified as a CUPA in 1997.
- The PCFD and Penryn Fire Department have requirements for the installation of temporary above-ground storage tanks used to store fuel and/or other flammable/combustible liquids during construction activities. These requirements include inspection of a vegetation break and identification of emergency shutoff valves and switches. If electrical connections are required to these facilities, permitting will be required through the Placer County Building Department.
- Following construction and development, commercial businesses which have underground storage tanks and/or above-ground storage tanks must register them with the State Water Resources Control Board.

- A Hazardous Materials Storage and Containment Plan will be required by the Placer County Department of Environmental Health for fuels and chemicals related to golf course maintenance. This plan would be prepared under Article 80 of the Uniform Fire Code. Copies of the plan would be filed with the PCFD, the Penryn Fire Department and with the Placer County Department of Environmental Health.
- Commercial businesses which handle and store hazardous substances may need to file an Emergency Response Plan and Hazardous Chemical Inventory Listing with the Placer County Fire District, depending on the types and quantities of substances stored.
- During construction of the proposed project, any environmental problems detected within the proposed project site will need oversight by the appropriate governmental agency (e.g., Placer County Department of Environmental Health, California Department of Toxic Substance Control, Regional Water Quality Control Board, etc.).

Placer County's General Plan contains policies governing development within Placer County. The policies relating to hazardous materials are identified in the General Plan Consistency discussion in Section 11.3.

11.3 IMPACTS

This section discusses and identifies the environmental impacts resulting from the proposed project, and suggests mitigation measures to reduce the level of impact. A detailed discussion of mitigation measures is included in Section 11.4.

Potential significant impacts associated with hazardous waste/materials impacts have been evaluated using the following criteria:

- An increased fire hazard in areas with dry grass during grading and construction of the proposed project;
- Risk of accidental release of hazardous substances during grading and construction of the proposed project;
- Soil and/or groundwater contamination above levels that can easily be remediated;
- Stored hazardous materials to which workers could potentially be exposed;
- Soil and/or groundwater contamination at properties located adjacent to the proposed project have the potential to affect soil and/or groundwater quality of the proposed project; and,
- Post construction conditions of the proposed project would create a risk of the accidental release of hazardous substances.

11.3.1 Construction Impacts

IMPACT HW-1:	Potential contact with stored hazardous waste/materials during construction
SIGNIFICANCE:	Less Than Significant
MITIGATION:	None Warranted

Minor amounts of stored hazardous waste/materials exist in outbuildings located at the former ranch headquarters, located within the project site but not a part of the specific plan for Bickford Ranch. These materials consist of containers of paints, solvents, agricultural chemicals, and used motor oil. Since the parcel is not part of the specific plan for Bickford Ranch, worker contact with these materials and the

potential for a hazardous waste/materials release during construction activities at the project site is unlikely, and this impact is considered less than significant.

IMPACT HW-2:	Possible contact with contaminated soils during construction
SIGNIFICANCE:	Potentially Significant
MITIGATION	
Proposed:	Mitigation Measure HW-A (Report possible contamination to EHS-HMS)
Recommended:	None
RESIDUAL SIGNIFICANCE:	Less Than Significant

Site grading and excavation activities could potentially encounter contaminated soils. Abandoned lead-sheathed underground telephone cables known to exist at the site have been evaluated and are not considered to have impacted site soils. However, unknown former waste disposal or cattle dipping vat locations on the project site may exist. While no contaminated soils have been observed or reported, the possibility of undiscovered impacts to soil and/or groundwater water within the project site exists. Construction activities could spread any potentially contaminated soils across the site or into the air, creating a potentially significant impact.

During site grading and construction activities, any unearthed areas of apparent or suspected environmental impacts shall be immediately reported to the County's Environmental Health Services—Hazardous Materials Section (EHS-HMS). Resolution of the problem shall be to the satisfaction of the EHS-HMS. Implementation of this mitigation measure would reduce the impacts to a less than significant level.

IMPACT HW-3:	Accidental release of hazardous substances during construction
SIGNIFICANCE:	Potentially Significant
MITIGATION	
Proposed:	Mitigation Measures HW-B (Comply with CDF and Penryn Fire Department requirements for temporary storage of combustible/flammable liquids at construction sites); and HW-C (Comply with County and CDF requirements for reporting releases of hazardous materials)
Recommended:	None
RESIDUAL SIGNIFICANCE:	Less Than Significant

During grading and construction of the proposed project, it is anticipated that limited quantities of hazardous substances may be brought on-site. During site clearing and grading activities, it is possible that temporary aboveground storage tanks and other smaller storage containers would be brought on site for use in storing gasoline and/or diesel fuel for construction equipment. As with any liquid, during handling and transfer from one container to another, the possibility of an accidental release would exist. If a spill should occur, it should be contained and reported to local fire department and Placer County Environmental Health Department immediately. Impacted soil should be excavated, and properly disposed of off-site.

The California Department of Forestry and Fire Protection, Nevada-Yuba-Place Unit (CDF) and the Penryn Fire Department have specific requirements for the temporary storage of combustible/flammable liquids at construction sites which must be followed. Due to the routine nature of the activities to be

performed, the threat of an accidental spill is considered unlikely. If a spill should occur, it should be contained and reported to the CDF and County Environmental Health Department immediately. Impacted soil should be excavated and disposed of as may be required by the County.

Minor amounts of stored hazardous materials exist in outbuildings located at the former ranch headquarters, located within the project site but not a part of the specific plan for Bickford Ranch. These materials consist of containers of paints, solvents, agricultural chemicals, and used motor oil. Since the parcel is not part of the specific plan for Bickford Ranch, worker contact with these materials during construction activities at the project site is unlikely.

By following County and CDF requirements for temporary fuel storage and reporting of inadvertent releases of hazardous materials, the impact of such a release would be reduced to less than significant.

11.3.2 Operational Impacts

IMPACT HW-4:	Potential groundwater contamination
SIGNIFICANCE:	Potentially Significant
MITIGATION	
Proposed:	Mitigation Measure HW-D (Comply with the recommendations of a limited groundwater investigation)
Recommended:	None
RESIDUAL SIGNIFICANCE:	Less Than Significant

Several indications of actual or potential soil contamination are reported at the former Bickford Ranch headquarters area. While this 10-acre area is not part of the specific plan for Bickford Ranch, it is possible that contamination could extend to the adjacent project site, particularly if groundwater were affected. In the area of the sink, potential migration of organic compounds through soil is not expected to be of concern. A groundwater sample collected from a well located in a building within the former headquarters area was found to be uncontaminated; however, the PEM report did not assess the direction of groundwater flow. Currently there is insufficient data to indicate whether groundwater in the headquarters area is contaminated, or if contaminated, groundwater has moved off of the 10-acre headquarters area parcel. An additional groundwater investigation is necessary to assess groundwater quality downgradient of the headquarters area, coupled with appropriate remediation, if necessary. Assessment of downgradient groundwater quality and appropriate remediation would reduce this impact to less than significant.



IMPACT HW-5:	Possible contact with hazardous materials and conditions in mine tunnels
SIGNIFICANCE:	Potentially Significant
MITIGATION	
Proposed:	Mitigation Measure B-N (Install bat gates at tunnel entrances)
Recommended:	None
RESIDUAL SIGNIFICANCE:	Less than significant

Several open and inactive mine or prospect tunnels exist on the project site. Although the interiors of these tunnels have not been examined, the nature of the mineral deposit and typical methods of working them suggest that the presence of hazardous materials is unlikely. Nevertheless, the absence of hazardous materials cannot readily be determined, and the presence of physically hazardous conditions within these inactive workings is likely. To prevent possible encounters with hazardous materials, as well as remove the physical hazards associated with open and abandoned mine workings, these tunnels should be

permanently closed or secured to prevent human access. No governmental agency provides regulations or permitting for the closure and abandonment of inactive mines. However, the California Division of Mines provides recommendations for mine tunnels, including complete closure of the mine entrance following a professional survey documenting the absence of bats, and the use of “bat gates” if bats are suspected to be present, or if a survey has not been completed. The applicant proposes to secure mine tunnel entrances with the use of “bat gates.” Securing the mine tunnels to prevent access will reduce this impact to less than significant.



**IMPACT HW-6:
SIGNIFICANCE:
MITIGATION**

Proposed:

Accidental release of hazardous substances after construction
Potentially Significant

Mitigation Measures HW-C (Comply with County and CDF requirements for reporting releases of hazardous materials); HW-E (Comply with the Placer County Department of Environmental Health requirements for preparation and filing of Emergency Response Plans and Hazardous Materials Storage and Containment Plans); HW-F (Finalize and implement the Applicant’s Golf Course Chemical Application Management Plan); and HW-G (Comply with underground storage tank regulations through the Placer County Environmental Health Department)

**Recommended:
RESIDUAL SIGNIFICANCE:**

None
Less Than Significant

Following construction of the proposed project it is anticipated that small quantities of hazardous substances would exist within the project site. Development of the proposed project would include low to medium density residential housing, village commercial center, and an 18-hole golf course.

It is anticipated that small quantities of hazardous substances, such as household pesticides, cleaning agents, and small quantities of motor fuel, may be stored for household use and may be used and/or sold by one or more of the commercial businesses developed within the proposed project area. Any commercial business which stores an acutely hazardous substance or 55 gallons and/or 500 pounds of a hazardous substance or 200 cubic feet of combustible gas must file an Emergency Response Plan and Hazardous Materials Storage and Containment Plan with the Placer County Department of Environmental Health, with a copy to the CDF and the Penryn Fire Department. In addition, commercial businesses which have underground storage tanks and/or aboveground storage tanks must comply with underground storage tank regulations through Placer County.

An 18-hole golf course is planned for the Heritage Ridge portion of the proposed project. Storage and use of hazardous materials, including fuels, fertilizers, pesticides, and herbicides will be a component of maintenance of the golf course. To ensure proper storage and handling of these materials, the Applicant has prepared and submitted a Draft Chemical Application Management Plan (CHAMP) for the golf course for County review. The CHAMP will detail turf management practices, plans for storage and use of chemicals, methods for controlling potential surface water quality impacts due to runoff contamination, and a plan for surface water quality monitoring to document the outcome of the program and provide information regarding changes to the program that may be needed. The golf course facility would also be included in the Hazardous Materials Storage and Containment plan described above, or a separate plan would be prepared for it.

During the storage and/or use of chemical products, the risk of an accidental release exists. However, based on the types and quantities of hazardous substances anticipated to be used, the risk of a release of a significant quantity of hazardous substances is consistent with that of the surrounding developments and is considered minimal. By following County and State requirements for the management of hazardous materials, the risk of a release of hazardous substances would be reduced to less than significant.

11.3.3 General Plan Consistency

The Placer County General Plan policies addressing hazardous waste and materials are identified below, and a determination of the proposed project's consistency is made. The proposed project is consistent with Placer County's hazardous waste and materials policies.

- 8.G.9 The County shall require that applications for discretionary development projects that will generate hazardous wastes or utilize hazardous materials include detailed information on hazardous waste reduction, recycling, and storage.

Consistent.

A Final Chemical Management and Application Program will be prepared and submitted for County review. This program will be implemented as part of the golf course development for use, storage and handling of pesticides, petroleum products or other hazardous materials. Any other usage of hazardous materials on the project site (i.e., landscape maintenance, commercial uses) will also submit pertinent information regarding their operations.

- 8.G.10 The County shall require that any business that handles a hazardous material prepare a plan for emergency response to a release or threatened release of a hazardous material.

Consistent.

An emergency response plan will be prepared as part of the permitting process for the handling of hazardous materials on the project site.

11.4 MITIGATION MEASURES

Mitigation Measure HW-A: Report possible contamination to EHS-HMS

Mitigation Measure HW-A applies to Impact HW-2.

Prior to initiating construction, all abandoned vehicle bodies and other casual refuse on the site shall be removed and disposed of appropriately. Construction contract specifications will require that, if during the course of constructing the proposed project evidence of soil and/or groundwater contamination with hazardous material (i.e., soil staining, unusual odors, or a structure resembling a CDV) is encountered, the Applicant shall stop work and immediately contact the County Environmental Services Hazardous Materials Section. Resolution of the problem shall be to the satisfaction of Environmental Health Services and the Central Valley Regional Water Quality Control Board. These measures would reduce the impacts to a level that is less than significant.

Mitigation Measure HW-B: Comply with CDF and Penryn Fire Department requirements for temporary storage of combustible/flammable liquids at construction sites

Mitigation Measure HW-B applies to Impact HW-3.

The Applicant proposes procedures to comply with the requirements of the CDF and the Penryn Fire Department. The CDF and the Penryn Fire Department have specific requirements for the temporary storage of combustible/flammable liquids at construction sites which must be followed. These requirements include inspection to verify maintenance of a vegetation break and identification of emergency shutoff valves and switches. If electrical connections are provided to these facilities, the County will additionally require permitting through the County Building Department. Implementation of these requirements would reduce the potential impacts to less than significant levels. The Applicant shall also participate in the Community Right-to-Know program administered by the County.

Mitigation Measure HW-C: Comply with County and CDF requirements for reporting releases of hazardous materials

Mitigation Measure HW-C applies to Impacts HW-3 and HW-6.

The Applicant proposes to comply with County and CDF requirements for reporting releases of hazardous materials. If a release of hazardous materials should occur, it will be contained and reported to the CDF and County Environmental Health Department immediately. Impacted soil will be excavated and disposed of as may be required by the County. Implementation of these measures would reduce the potential impact to less than significant.

Mitigation Measure HW-D: Comply with the recommendations of a limited groundwater investigation

Mitigation Measure HW-D applies to Impact HW-4.

A limited groundwater investigation, planned and conducted by qualified environmental engineering consultants, will be conducted to assess whether contaminated groundwater exists downgradient of the former ranch headquarters area. Such an investigation will include installation and sampling of one or more borings to shallow groundwater located on the project site immediately downgradient of the headquarters area. If the analytical results are other than non-detect, follow up investigation will be required to assess appropriate remedial action. The Applicant will comply with the recommendations of the groundwater investigation.

Mitigation Measure HW-E: Comply with Placer County Department of Environmental Health requirements for preparation and filing of Emergency Response Plans and Hazardous Materials Storage and Containment Plans

Mitigation Measure HW-E applies to Impact HW-6.

The Applicant proposes to comply with Placer County Department of Environmental Health requirements for preparation and filing of Emergency Response Plans and Hazardous Materials Storage and Containment Plans. These requirements apply to any commercial business which stores an acutely hazardous substance or 55 gallons and/or 50 pounds of a hazardous substance or 200 cubic feet of combustible gas. These plans would be prepared under Article 80 of the Uniform Fire Code. Copies of these documents must be provided to the CDF and the Penryn Fire Department. These measures would reduce the impacts to a level which is less than significant.

Mitigation Measure HW-F: Finalize and implement the Applicant's Golf Course Chemical Application Management Plan

Mitigation Measure HW-F applies to Impacts HW-6, H-6, H-7, B-17, and B-18.

The Applicant shall prepare a draft Golf Course Chemical Application and Management Plan (CHAMP) and Water Quality Monitoring Plan. The purpose of the CHAMP is to document turf/landscape maintenance policies and procedures to be employed at the golf course and associated facilities. The specific objectives of the policies and procedures are to:

- Prevent and minimize potential impacts to soil, surface water (runoff), and groundwater from use of pesticides, fertilizers, and other potentially hazardous materials;
- Provide for appropriate management and storage of potentially hazardous chemicals used at the golf course; and
- Provide for monitoring to provide data for management feedback and to demonstrate these objectives have been achieved.

Locations for water monitoring shall be based on the management information objectives of the CHAMP and shall have a sound hydrogeologic basis. Monitoring points shall be located generally as indicated on Figure GW1-1. Two types of groundwater monitoring wells shall be provided. Type 1 monitoring wells shall be located in the shallow groundwater zone within the zone of decomposed granitic bedrock adjacent to selected fairways to provide early feedback for management purposes. Type 2 wells shall be sited to provide more general coverage within the shallow groundwater zone of portions of the golf course and associated detention basins.

- Type 1 Monitoring Wells – A minimum of four groundwater monitoring locations shall be sited, as shown in Figure GW1-1, directly adjacent to selected fairways and the driving range to provide early identification of potential water quality problems and implementation of corrective actions within a short time frame. The wells shall be sited in proximity to the flowlines of existing natural drainageways. Siting of the wells shall be directed by a professional geologist or hydrogeologist to monitor shallow, laterally migrating groundwater within the zone of decomposed granitic bedrock, and shall be completed and screened to the base of the zone of decomposition. These wells are identified as:
 - Monitoring Well (MW)1-1, to be located adjacent to the lower end of the driving range;
 - MW1-2, to be located adjacent to the fairway and green of the 12th hole;
 - MW1-3, to be located in proximity to a drainage way below the fairway of the 14th hole; and
 - MW1-4, to be located in proximity to a drainage way adjacent to the fairway and green of the 6th hole.
- Type 2 Monitoring Wells – Four groundwater monitoring locations shall be sited on the golf course perimeter to provide overall coverage of the majority of the golf course area. The wells shall be sited in proximity to the flowlines of existing natural drainageways, and shall be designed to monitor shallow, laterally migrating groundwater within the zone of decomposed granitic bedrock. Installation of these wells shall be supervised by a geologist or hydrogeologist, and they shall be completed and screened to the base of the zone of decomposition.
 - MW2-1 shall be located in Clover Valley approximately ¼ mile northeast and upgradient from Clover Valley Reservoir. This location provides coverage of shallow groundwater draining managed turf areas associated with golf course holes 12 through 16 and a portion of the 17th fairway. MW2-1 is also downgradient of three detention ponds and a PCWA storage pond.

- MW2-2 shall be located at the confluence of the Clover Valley Creek drainage and a drainage which includes the 10th hole and a portion of the 1st hole. This location is also downgradient of the portion of the golf course monitored by MW2-1.
- Monitoring well MW2-3 is to be located downgradient of a detention pond within a drainage to the north of Boulder Ridge. The fairway and green of the 7th hole is located in the upper end of the drainage.
- Monitoring well MW2-4 is located downgradient of a detention pond in the drainage that includes the 3rd and 4th holes.
- Surface Water Monitoring – The PCWA pond that will be constructed adjacent to the 13th hole will become part of the canal operating system. This pond would intercept surface water runoff from several fairways on the eastern portion of the golf course and shall be incorporated into the monitoring program as surface water monitoring location SW-1.

Details of the plan cover the specific sampling parameters to be used, the frequency of sampling, and the reporting of results. This is described in more detail in Master Response GW-5. The draft CHAMP is generally adequate for the current status of the project. When a golf course owner/operator prepares operational plans, it will then be appropriate to amend the CHAMP with details of the following:

- Golf course layout.
- Drainage facilities.
- A minimum 25-foot natural area buffer zone between managed turf and water bodies.
- A map delineating the relationship between managed turf, natural areas, and surface water bodies.
- Selection of plant and turf material to minimize need for pesticide use.
- A specific list of chemicals to be used.
- Procedures for the use of each chemical.
- Schedule for soil nutrient testing that provides for testing once per year, after one year of testing that demonstrates that nutrient requirements remain relatively constant.

The County must accept the final CHAMP prior to issuance of grading permits or approval of improvement plans, whichever is issued first.

Implementation of a CHAMP approved by Placer County would reduce the potential impacts of the use of golf course chemicals to a less-than-significant level.

Mitigation Measure HW-G: Comply with underground storage tank regulations through the Placer County Environmental Health Department

Mitigation Measure HW-G applies to Impact HW-6.

Any commercial businesses that have underground storage tanks and/or aboveground storage tanks must comply with underground storage tank regulations through Placer County.

Other Mitigation Measures: Mitigation Measure B-N, Install bat gates at tunnel entrances, is discussed in Chapter 13.